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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

HORUS VISION, LLC, a California limited liability company,

Plaintiff,

v.

APPLIED BALLISTICS, LLC, a Michigan limited liability company, APPLIED BALLISTICS, INC., an Indiana corporation, and APPLIED BALLISTICS MEDIA, INC., an Indiana corporation.

Defendants.

Case No. 5:14-cv-05206-BLF-HRL

**PLAINTIFF'S OPENING CLAIM CONSTRUCTION BRIEF**

**DATE:** **JULY 24, 2015**
**TIME:** **9:00 AM**
**COURTROOM:** **NO. 3, 5TH FLOOR**
**JUDGE:** **HON. BETH L. FREEMAN**

**JURY TRIAL DEMANDED**

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Plaintiff Horus Vision, Inc. ("Horus Vision") respectfully submits this opening brief in support of its proposed claim constructions of the disputed terms of Horus Vision's U.S. Patent No. 8,893,971 ("the '971 patent" or "'971").[1]

## I. INTRODUCTION

This Court has already construed the claims of U.S. Patent 7,937,878.[2] The '971 patent at issue here is closely related to the '878 patent. The specification of the '971 includes the '878 disclosure and drawings, with some added material. As explained in detail below, the three Applied Ballistics parties (hereinafter "AB") have identified nothing in the teachings of the '971 patent or its file history that justifies any departure from this Court's prior constructions. Despite this, AB insists on re-litigating several positions that have already been considered and rejected by this Court.

Like the '878 patent, the '971 patent relates to improving shooting accuracy, particularly over long distance ranges, using a novel combination of telescopic gunsights and ballistics calculation software. This suit was brought to stop AB from infringing, and inducing others to infringe, Horus Vision's patent rights. Horus Vision's constructions of disputed claim terms, discussed herein, are supported by the intrinsic record of the '971 patent and will assist a jury.

Conversely, the constructions proposed by AB are litigation driven, seeking to depart from this Court's prior claim construction rulings without intrinsic or extrinsic support. Many of AB's constructions also seek to narrow the scope of the asserted claims, again without support. These efforts are contrary to well-settled law requiring that claim terms be given the full scope of ordinary meaning to one of skill in the art, unless the named inventor (1) engaged in lexicography in an unambiguous manner or (2) expressly disavowed claim scope. AB's inability to support its proposed narrow constructions with proof of either lexicography or disavowal is fatal to its efforts to redraft the claims in a narrow fashion.

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[1] The '971 patent was provided as Exhibit B to the parties' Joint Claim Construction and Prehearing Statement. *See* ECF No. 23-2.

[2] *See* "Order Construing Claim Terms of U.S. Patent No. 7,937,878," *Horus Vision, LLC v. Applied Ballistics, LLC*, Case No. 13-cv-05460-BLF, 2014 WL 6989233 (N.D. Cal. Dec. 9, 2014) (hereinafter "'878 Markman").

AB's indefiniteness arguments are similarly contrary to well-settled law. Supreme Court precedent establishes that claim terms are definite if one of ordinary skill in the art can determine the scope of the claims, read in light of the specification, with reasonable certainty. Because issued claims are presumed valid, indefiniteness can only be proven by clear and convincing evidence. Here, AB fails to meet that burden. As detailed below, intrinsic and expert evidence resoundingly demonstrate that the claim language of the '971 patent distinctly states the scope of the invention to one of ordinary skill in the art. AB's conclusory indefiniteness arguments ignore the teachings of the patent and the prior art, falling far short of the clear and convincing standard. As explained in this brief and the accompanying declaration of Horus Vision's expert, the '971 patent is definite to one of ordinary skill in the art.

## II. LEGAL STANDARD

### A. Principles of Claim Construction

Claim construction is a question of law to be determined by the Court. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). Since "[i]t is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude,'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citation omitted), "[t]he appropriate starting point . . . is always with the language of the asserted claim itself." *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998). Proper interpretation of a claim term "can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." *Phillips*, 415 F.3d at 1316 (internal quotations and citation omitted). Consequently, claims should be construed in the manner that "most naturally aligns with the patent's description of the invention." *Id*. (internal quotations and citation omitted).

A disputed claim term should not be "construed in the abstract, but in the context in which the term was presented and used by the patentee, as it would have been understood by a person of ordinary skill in the field of the invention…when read and understood in light of the entire specification and prosecution history." *Fenner Invs., Ltd. v. Cellco P'ship*, 778 F.3d 1320, 1322-23 (Fed. Cir. 2015). Therefore, a claim is read in light of the specification, which is "the single

best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (internal quotations and citation omitted). There exists "a 'heavy presumption' that a claim term carries its ordinary and customary meaning." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citation omitted).

Claim construction may deviate from the ordinary meaning of a disputed term only if (1) the patentee sets out a definition and acts as a lexicographer, or (2) the patentee disavows the full scope of a claim term either in the specification or during prosecution. *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). "To act as its own lexicographer, a patentee must clearly set forth a definition of the disputed claim term other than its plain and ordinary meaning." *Id.* (internal quotations and citation omitted). Even then, the definition should be read in light of the specification as a whole. *Allergan, Inc. v. Apotex, Inc.*, 754 F.3d 952, 957-58 (Fed. Cir. 2014). "The standard for disavowal of claim scope is similarly exacting." *Thorner*, 669 F.3d at 1366. "Absent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the full scope of its claim language." *Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1358 (Fed. Cir. 2004).

Extrinsic evidence (such as expert and inventor testimony, dictionaries, and learned treatises) is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Phillips*, 415 F.3d at 1318. It also may not be used to contradict or change the meaning of claims "in derogation of the 'indisputable public records consisting of the claims, the specification and the prosecution history,' thereby undermining the public notice function of patents." *Phillips*, 415 F.3d at 1319; *see also Eidos Display, LLC v. AU Optronics Corp.*, 779 F.3d 1360, 1364-65 (Fed. Cir. 2015); *Shire Dev., LLC v. Watson Pharm., Inc.*, No. 2013-1409, 2015 WL 3483245, at *4 (Fed. Cir. June 3, 2015). Thus, if intrinsic evidence mandates the construction of a term that is at odds with extrinsic evidence, courts must defer to the definition provided by the former. *See Phillips*, 415 F.3d at 1324.

**B. Indefiniteness**

A patent is only invalid for indefiniteness if the "claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those

skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). "[T]he definiteness requirement must take into account the inherent limitations of language. Some modicum of uncertainty . . . is the price of ensuring the appropriate incentives for innovation." *Id.* at 2128 (internal quotations and citations omitted). Therefore, "the certainty which the law requires in patents is not greater than is reasonable, having regard to their subject-matter." *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378-79 (Fed. Cir. 2015) (internal quotations and citation omitted). The party asserting invalidity has the burden of proving, by clear and convincing evidence, that one skilled in the art would not understand the disclosure. *See* 35 U.S.C. § 282; *Telcordia Techs., Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365, 1377 (Fed. Cir. 2010).

## III. THE '971 PATENT AND TECHNOLOGY OVERVIEW

The '971 patent belongs to a family of Horus Vision patents related to its inventions for improving shooting accuracy, particularly at long ranges. Horus Vision and its founder Dennis Sammut have been involved with this field since the mid-1990s. The '971 patent was filed on June 17, 2014, and claims priority to applications dating back to May 15, 2009.

Portions of Horus Vision's contributions to this field relate to is its new methods of using a ballistics calculator to generate aiming information that is used in conjunction with its novel reticle designs.[3] The Court will be familiar with reticle and ballistic calculator technology from its construction of Horus Vision's '878 patent. Based on unique designs validated through extensive testing in the field, Horus Vision's reticles provide advanced grid designs that enable a shooter to quickly and accurately adjust for a multitude of factors that affect the flight path of a bullet. Because of their success in addressing environmental and other factors, Horus Vision's reticles have been widely adopted in the fields of hunting, sport shooting, and military use.

Although independently useful, Horus Vision's advanced reticle designs can be combined with its ballistics software in a novel way to generate aiming information. Specifically, Horus Vision's software allows a shooter to input and apply several informational parameters related to

[3] *See, e.g.*, '971 at 2:3-59.

aim. These novel combinations of information permit a shooter to increase accuracy at long ranges by addressing complex factors such as the aforementioned environmental factors.

Though the '878 disclosure is contained within the '971 patent, the '971 patent claims are distinct from those of the '878 patent. The claims recite different reticle-specific limitations and a distinct series of method steps for combining use of these reticles with ballistic calculators. The only independent claim of the '971 patent recites a method for generating aiming information to improve shooting accuracy. This method recites several steps related to a target acquisition device (such as a riflescope), elements pertaining Horus Vision's advanced reticle design, and the operation of the ballistics software, including the input of informational parameters that are designed to improve accuracy. The patent contains 12 dependent claims that recite additional limitations and permutations of the independent claim.[4] Claims 1-4 and 6-13 of the '971 patent are asserted in this case.

## IV. DISPUTED TERMS

### A. "intersects" / "intersection" (Claim 1(a)(ii), 1(a)(vi), 7)

| Horus Vision's Proposed Construction | Applied Ballistics' Proposed Construction |
|---|---|
| "intersects" and "intersection" should have their common and well-understood meaning.<br><br>The intersection of cross-hairs need not be visibly depicted, but may instead be inferred from context.[5] | "meets and crosses at a point." |

The Court has already construed this term and rejected the exact argument AB is making here. ('878 Markman at *8.) AB presents no new intrinsic or extrinsic evidence to support a departure from this Court's prior construction.

AB again argues that the actual site of intersection, between two intersecting lines, must be visibly depicted on the reticle. This Court's prior order removed any ambiguity in this regard,

[4] For reference, the claim set of the '971 patent is provided at the end of this brief as Appendix A.
[5] *See* '878 Markman at *8.

by explaining based on the express teachings of the patent[6] that "[t]he intersection of cross-hairs need not be visibly depicted, but may instead be inferred from context." (*Id.* at *10.)

The specification is also clear that reticles may comprise a central dot at the point of intersection. ('971 at 45:49-55.)[7] Yet AB's proposed construction improperly seeks, for a second time, to exclude these expressly recited embodiments from the claim scope. *See NeoMagic Corp. v. Trident Microsystems, Inc.*, 287 F.3d 1062, 1074 (Fed. Cir. 2002) ("A claim construction that excludes the preferred embodiment is rarely, if ever correct and would require highly persuasive evidentiary support.") (internal quotations and citation omitted). The impropriety of excluding these embodiments informed this Court's prior refusal to adopt AB's proposed claim construction:

> Such an interpretation would make little sense and is contrary to the clearly intended interpretation of Figure 32, which is of a single primary vertical cross-hair and a single primary horizontal cross-hair, the intersection of which is not visibly depicted but cannot reasonably be questioned. The court therefore finds that the intersection of two cross-hairs may be inferred from the surrounding context, even if the exact point of their intersection is not visibly depicted.

('878 Markman at *9; *see also* '971 at Fig. 32.)[8]

The dictionary definition cited by AB, from the file history of U.S. Patent No. 7,937,878, is silent as to the scope of the claim term and does not speak to whether the intersection must be visibly depicted. AB neglects to consider this dictionary definition in context of the intrinsic record. *See Phillips*, 415 F.3d at 1321 ("reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the

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[6] *See, e.g.*, '971 at 49:22-26; *see also id.* at 3:57-4:1.

[7] The patent specification provides several reticle design figures showing a centrally intersecting primary vertical and primary horizontal cross hair, yet the reticle markings depict the point of intersection in a multitude of ways. (*See, e.g.*, Fig. 32 (intersection depicted as an open circle); Fig. 37 (intersection depicted as an open circle over cross hairs); Fig. 38a (intersection depicted as an open cross); Fig. 44a (intersection depicted as a solid dot); Fig. 48a (intersection depicted as an open cross); Fig. 48b (intersection depicted as a solid dot); Fig. 50b (intersection depicted as a solid dot); and Fig. 52c (intersection depicted as a gap in the primary horizontal and primary vertical cross hairs).)

[8] *See also* '878 Markman at *9 ("[A]ny interpretation of 'intersects' that would not be met by the primary vertical and primary horizontal cross-hairs in Figure 32 would exclude this embodiment from the scope of the patent claims.").

term in the abstract, out of its particular context, which is the specification.").[9]

The construction proposed by AB, which seeks without basis to contravene this Court's prior order and the express teachings of the '971 patent, should be rejected for a second time.

**B. "interrupted intersection" (Claim 7)**

| Horus Vision's Proposed Construction | Applied Ballistics' Proposed Construction |
|---|---|
| "interrupted intersection" should have its common and well-understood meaning.<br>If a construction is required, the element should be construed to mean "an intersection of lines with a gap or shape at the junction." | An intersection is a point where two lines meet and cross. An interrupted intersection is a point where two lines would meet and cross but one or both of the lines stops before reaching that point and then picks up on the other side of that point and continues on for some distance.<br>Indefinite. |

In the '971 patent, the claim term "interrupted intersection," which did not appear in the '878 patent, expressly limits the claim scope to reticles in which the point of intersection is depicted by a gap at the point of intersection in the cross hairs. A dependent claim incorporates all elements of an independent claim and further narrows claim scope through additional limitations. *See* 35 U.S.C. § 112(d). As this Court correctly determined with respect to the '878 patent, the term "intersection," in the context of the patent, is broad and encompasses reticles in which the point of intersection is visibly depicted with the cross hair lines, and reticles in which it is not. ('878 Markman at *8.) In this round, AB attempts to leverage this narrowed dependent claim to support its proposed "do-over." AB alternatively suggests that the claim term is indefinite unless the Court applies AB's unsupported construction. Neither argument withstands scrutiny.

Horus Vision's construction is consistent with the '971 patent's specification. First, like "intersection," the term "interrupted" has a plain and well-understood meaning. Second, the specification expressly provides that in "further embodiments, the central dot is indicated by interrupted lines." ('971 at 45:48-55.) The specification also teaches that cross-hair lines can be depicted as unbroken lines or as broken lines. (*Id.* at 3:66-4:1.) Unlike the broader term

[9] The Court has also rejected AB's arguments concerning Horus Vision's statements regarding the Heidmann reference in this office action response. (*See* '878 Markman at *9-10.)

"intersection," where the intersection point of two crosshairs may or may not be depicted as crossing lines, "interrupted intersection" specifies a narrower claim scope such that the intersection is depicted as a gap in the intersecting cross-hair lines. For example, the description of the embodiment depicted in Fig. 51a provides,

> reticles of the present invention comprise cross-hairs that are, for example, lines, straight lines, uninterrupted lines and interrupted lines. In other embodiments, cross-hairs that are interrupted lines are interrupted, for example, by spaces of equal length, by spaces of unequal length, or by lines of shorter length. The present invention is not limited by the nature of the cross-hairs.

(*Id.* at 49:11-17.)[10]

AB's proposed construction improperly deviates from the express teachings of the asserted patent that embodiments should not be limited by the nature of the cross-hairs at the point of intersection. This attempt to narrow the scope of the claim should be rejected because no evidence of lexicography or disavowal is shown. *Thorner*, 669 F.3d at 1367 ("The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope.").

AB also argues the terms "intersection" and "interrupted intersection" is indefinite under this Court's prior construction. This ignores the definition and detailed embodiments provided in the specification and this Court's detailed reasoning in its prior order. The fact that the intersection could either be interrupted or uninterrupted, depicted or not depicted, does not "fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus,* 134 S. Ct. at 2124. AB offers no intrinsic or extrinsic evidence that one of ordinary skill in the art would not understand this disclosure.[11]

[10] *See also* '971 at 46:22-29.

[11] In its prehearing disclosures for this term, AB indicated it would rely on the entire file history of the '971 patent, "including the original application … and the Response … filed on or about July 10, 2014." (*See* ECF No. 23-1, Ex. A at 8-9.) No explanation was given of the relevance of this evidence and no specificity was provided as to how it informs the dispute. Horus Vision is therefore unable to respond and reserves the right to do so if and when AB explains its position.

AB also failed to disclose its intention to offer any expert testimony on this point,[12] thus it appears that the only evidence AB intends to offer regarding the construction of this term is cumulative of the evidence already considered and rejected by this Court in the prior case.[13] AB thus cannot possibly meet its burden of proving, by clear and convincing evidence, that this Court's construction was erroneous and renders the claims indefinite. *See Biosig*, 783 F.3d at 1377-78*; see also Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1366 (Fed. Cir. 2003) ("Any fact critical to a holding on indefiniteness, moreover, must be proven by the challenger by clear and convincing evidence."). In light of the Court's prior construction of "intersection" and the commonly understood meaning of "interrupted," no construction of the term "interrupted intersection" is needed. Nor does AB present clear and convincing evidence that such a plainly understood word renders the claim indefinite.

### C. "two or more vertical lead markings upon said primary horizontal cross-hair" (Claims 1(a)(iii), 1(a)(iv))

| Horus Vision's Proposed Construction | Applied Ballistics' Proposed Construction |
|---|---|
| "lead markings," a term within the claim element of "two or two or more vertical lead markings upon said primary horizontal cross-hair" should have its common and well-understood meaning.<br><br>If a construction is required, the element should be construed to mean "markings on a reticle that allow for assessment of rate of movement of a target along a cross-hair" | Cannot be construed (indefinite). |

[12] *See id.* at 1-2, 8-9.

[13] Anticipating that AB intends to argue that this term is indefinite and submit evidence in its answering brief, Horus Vision submits as an aid to the Court the expert declaration of retired Marine Corps Captain Mike Lamb, who opines that the terms "intersection" and "interrupted intersection" as construed by the Court in the prior action are not indefinite. *See* the accompanying declaration of Mike Lamb, U.S.M.C. (Ret.), (hereinafter "Lamb Decl."), at ¶¶ 49-53. Because AB has not given any summary of expert testimony on which it intends to rely, Horus Vision reserves the right to more specifically rebut any new evidence, including expert testimony, proffered in AB's answering brief.

AB argues that the term "lead markings" is indefinite.[14] AB's second attempt[15] to make this litigation-driven argument lacks merit. As discussed in Section II.B above, a claim is only indefinite if, when read in light of the specification and file history, it fails to inform those skilled in the art about the scope of the invention with reasonable certainty. *See Nautilus*, 134 S. Ct. at 2129-30. Horus Vision's proposed construction is based on the intrinsic record and is entirely consistent with how this claim term would be understood by one of ordinary skill in the art.

As the patent explains to the skilled artisan:

> [T]he reticle of the present invention comprises lead markings. As exemplified in FIG. 45, in some embodiments, lead markings on the reticle are used to aid the shooter in determining the direction and rate of movement of the target in relation to the shooter in order to target a moving object. As used herein, "rate of movement" refer to a unit of distance traveled per unit time. Any unit of distance and any unit of time are suitable for indicating rate of movement. In some embodiments, units of distance include, for example, inches, feet, yards, miles, centimeters, meters, or kilometers.

('971 at 46:49-59.)[16]

The patent also provides additional examples of lead markings—such as Figures 44a, 46a, 46b, 46d, 55a-q, 55r, and 55s—that precisely identify lead markings for indicating rate of movement.[17] These embodiments identify lead markings whose purpose is to *indicate rate of movement*.[18] Thus, as defined by the specification, a lead marking is a marking on a reticle that can be used to obtain an indicator of the rate of movement of the target. The specification also

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[14] *See* ECF No. 23-1, Ex. A at 3-5.

[15] *See* '878 Markman at *8.

[16] *See also* '971 at 46:49-54; 7:6-11 ("In one embodiment, the reticle of the present invention comprises a plurality of primary cross-hairs separated by predetermined distances, a plurality of secondary cross-hairs at predetermined distances along said plurality of primary cross-hairs, and a plurality of lead markings indicating rate of movement of the target along at least one said cross-hair.").

[17] *See, e.g.*, '971 at 58:4-7 ("As shown in FIGS. 55a, 55b and 55c, in some embodiments, reticles of the present invention comprise lead markings used to aid a shooter in determining the direction and rate of movement of a target in relation to a shooter."). Note that Figure 55 was amended during prosecution to address formality objections to the drawings where 55a became 55a-q, 55b became 55r and 55c became 55s.

[18] In all, the patent provides disclosure about the structure and use of lead markings that spans several columns and multiple figures. (*See* '971 at 13:14-14:3 and Figs. 45a-46b, 46d, 55a-q, 55r, and 55s.)

describes how the specific lead markings claimed by the '971 patent ("vertical lead markings upon said primary horizontal cross-hair") can be used by a shooter to more accurately and efficiently hit a moving target. (*See* '971 at 52:2-12 (describing use of a "lead marking comprising a secondary vertical cross-hair upon the primary horizontal cross-hair.").)

AB has indicated that its expert will opine that the patent "include[es] everything as a lead marking" and thus "does not define lead markings as anything." (ECF No. 23-1, Ex. A at 3-5.) This opinion, if offered in an expert declaration, is directly contrary to the express teachings of the specification. Moreover, any such opinion is contradicted by the supporting declaration of Horus Vision's expert, retired Marine Corps Captain Mike Lamb. As explained by Mr. Lamb, the term lead markings is well-known in the art and would be understood by one of ordinary skill in the art in the same manner that the term is used in the '971 patent. (*See* Lamb Decl. at ¶¶ 22-30; 38.) Mr. Lamb's declaration explains that AB's expert also appears to misconstrue this term by ignoring the critical context of the surrounding claim language, which recites lead markings only as "vertical lead markings upon said primary horizontal cross-hair." (*See id.* at ¶ 39.) Finally, Mr. Lamb's declaration explains that the use of "lead markings" in the '971 patent does not make the claims indefinite. (*See id.* at ¶¶ 36-46.)

AB's arguments suffer from a further deficit in that they ignore the express limitations of the patent claims at issue in this case. Claim 1 of the '971 patent never recites "lead markings" as a lone claim element, but instead only narrowly recites "two or more vertical lead markings upon said primary horizontal cross-hair." The specification provides detailed teachings regarding this particular embodiment.[19] Thus, the inquiry for this Court is whether this narrow recitation of specific lead markings on the claimed reticle is indefinite. Otherwise, AB would have this Court engage in construction of the term "lead markings" divorced from the context of any asserted claim – a clear error. *ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003) ("the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms."); *Vivid Techs., Inc. v. Am Sci. & Eng'g, Inc.*,

[19] *See* '971 at 13:1-5; 45:28-37; 52:2-12.

200 F.3d 795, 803 (Fed. Cir. 1999) ("[O]nly those [claim] terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy."). Accordingly, AB's attempt to relitigate concerns over whether lead markings can occupy the same position as secondary cross-hairs has no bearing on the '971 patent. (*See also* Lamb Decl. at ¶¶ 40-42.)

In this Court's previous claim construction, the Court expressed the view that "neither party has put forth any evidence of whether the term 'lead markings' was a term known in the art at the time the patent was filed." ('878 Markman at *8.) While it is true that neither party submitted extrinsic evidence on claim construction in that case, the definitional teaching given in the specification ('971 at 46:50-59) is itself strong intrinsic record evidence of the meaning of the term to one of skill in the art at the time the patent was filed. *See Phillips*, 415 F.3d at 1313 (it is a "well-settled understanding that inventors are typically persons skilled in the field of the invention."); *CCS Fitness, Inc.*, 288 F.3d at 1368 (explaining that the inventor is "presumably also an artisan of ordinary skill in the art" for purposes of comparing expert testimony). Furthermore, to address this issue, as noted above, Horus Vision has provided expert testimony explaining that the term was well-known in the art and has been consistently used up to the present day in the same manner as it is used in the '971 patent. (*See* Lamb Decl. at ¶¶ 22-30; 38.)

Since AB does not proffer an alternative construction of this term and instead rests on its statement that the term cannot be construed, an assertion contrary to the intrinsic and extrinsic evidence, the Court should decline to construe these terms. Alternatively, if the Court is inclined to provide a construction, it should be "markings on a reticle that allow for assessment of rate of movement of a target along a cross-hair" as the term is defined and used in the specification. (*See also* Lamb Decl. at ¶¶ 9; 31-35.)

**D. "ballistics calculator" (Claims 1(a), 1(b), 12, 13)**

| Horus Vision's Proposed Construction | Applied Ballistics' Proposed Construction |
|---|---|
| "ballistics calculator" should have its common and well-understood meaning.<br>If a construction is required, the element should be construed to mean "a device that calculates ballistics information" | A personal computer, monitor and printer, firearm and cartridge, scope and reticle, and at least two of the following peripheral devices: laser rangefinders, weather monitoring devices, and global positioning systems. |

AB's proposal for "ballistics calculator system" once again proposes a construction this Court has already rejected. By failing to present any new intrinsic or extrinsic evidence, AB offers this Court no reason to depart from its prior construction.

As this Court previously observed, "Applied Ballistics' construction would equate 'said ballistics calculator system' with some sort of cross between a standard office workstation and a rifle." ('878 Markman at *11.) As the Court put it,

> [t]he comical image of a would-be shooter attempting to drag into the field an elaborate apparatus like that described in the cited passage provides only further common-sense confirmation that no such interpretation of the phrase "ballistics calculator system" could possibly be intended.

(*Id.* at *12.)

This Court further held that Fig. 42, which is identical to Fig. 42 in the related '878 patent "explicitly defines" a ballistics calculator. (*Id.* at *11.) In fact, as the Court observed, the passage that appears at 30:46-63 of the '971 patent:

> clarifies that "the combination of which" is intended to include whichever components are used in conjunction with the ballistics calculator, and that the components listed in the passage are merely examples of potential components to be used in combination with the ballistics calculator.

(*Id.* at *12.)

AB's proposed construction also runs contrary to the teachings of the specification. The resulting system under AB's proposed construction would, as previously discussed, require a shooter to haul a computer monitor and printer into the field, and ignores the express teachings that such components are optional. ('971 at 30:46-31:5.) This impermissibly forecloses the preferred embodiments of the system described in the specification. The '971 explicitly provides

that "[t]he calculator and or any of the other associated devices may be provided in any form, including, but not limited to, computer, handheld device, traditional calculator, wristwatch, gun, visor, phone, video monitor, etc." ('971 at 31:2-5.) AB's proposal would also eliminate most of the expressly disclosed embodiments of the invention, which "provides modified ballistics software" adapted for use with a "hand-held computing device." (*See id.* at 30:49-63; *see also* 35:45-49; 37:45-38:40.)

Ultimately, the patent provides multiple embodiments of ballistics calculator systems, and teaches that the preferred embodiments do not include the bulky hardware proposed by AB. Therefore, this definition is not limited "specifically and exclusively to the items enumerated" by AB's proposed construction. ('878 Markman at *12; *see also id.* ("Although these associated devices may include those listed in the passage cited by Applied Ballistics, the patent does not require all of them all the time.").) AB's construction attempts to limit the claims to a single disfavored embodiment. *Phillips*, 415 F.3d at 1323; *see also SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1340 (Fed. Cir. 2001) ("one of the cardinal sins of patent law [is] reading a limitation from the written description into the claims."). AB gives this Court no reason to depart from its previous construction, thus Horus Vision's proposed construction should again be adopted.

### E. Claim 1 element b) as a whole (Claim 1(b))

| Horus Vision's Proposed Construction | Applied Ballistics' Proposed Construction |
|---|---|
| Claim 1 element b) as a whole should have its common and well-understood meaning. | This element requires the user to enter information on all of the factors listed, *i.e.*, external conditions, a projectile, a relation of the shooter to the target, *and* a ballistics drag model *and* ballistic coefficient.[20] |

Horus Vision proposes that claim 1 element b) be given its plain and ordinary meaning. The phrase "inputting information into said ballistics calculator regarding one or more of …" uses ordinary words (with the exception of the term ballistics calculator, discussed above) with plainly understood meanings.

[20] Emphasis in original.

In contrast, AB's proposed construction is contrary to the plain language of the claim. The claim recites "one or more"—unambiguously disjunctive language. Yet, AB proposes conjunctive language that requires not "one or more" but *all four* recited elements. This baseless departure from unambiguous claim language is a transparent, litigation-driven effort to narrow the scope of the claims. *See Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1557 (Fed. Cir. 1995) (recognizing that meaning must be given to all the words of the claim); *see also Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (claim construction requires considering "what the inventors actually invented and intended to encompass by the claim.") (internal quotations and citation omitted).

Not only would AB's proposed construction constitute an illegal re-drafting of claim language, the specification teaches to the contrary. *See, e.g., K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1364 (Fed. Cir. 1999) ("Courts do not rewrite claims; instead, we give effect to the terms chosen by the patentee."). For example, description of Fig. 42 indicates the ballistics calculator inputs are only exemplary: "FIG. 42 illustrates an example of the inputs and outputs integrated into a Ballistics Calculating System of the present invention." ('971 at 12:54-56.) The '971 patent also teaches that information can be input selectively for purposes of making corrections:

> the shot misses two more marks down and one more mark right, instead of back tracking to find which input parameter may be in error, the shooter rapidly inputs this additional adjustment into the ballistics calculator, and the calculator will make the appropriate corrections across the entire range table based on the input.

('971 at 27:6-14.) The ability to make rapid adjustments with respect to certain parameters to improve aim is contrary to AB's proposed construction, which always requires the input of four types of information. AB points to nothing in the intrinsic record suggesting lexicography or disavowal of the claim's plain language, which is unsurprising since no such language exists. In light of the plain English use of "one or more" recited by the claim, the Court need not provide any construction of Claim 1 element b) to the jury.

### F. Claim 1 element c) as a whole (Claim 1(c))

| Horus Vision's Proposed Construction | Applied Ballistics' Proposed Construction |
|---|---|
| Claim 1 element c) as a whole should have its common and well-understood meaning. | This element requires the ballistics computer program to calculate aiming information using information on all of the factors listed, *i.e.*, the target acquisition device *and* external conditions, a projectile, a relation of the shooter to the target, *and* a ballistics drag model *and* ballistic coefficient.[21] "Ballistic coefficient" is as exemplified by William Davis, American Rifleman, March, 1989. |

Similarly, Horus Vision proposes that claim 1 element c) be given its plain and ordinary meaning. The phrase "calculating aiming information from said information regarding the target acquisition device and said information regarding one or more of …" indicates the listed types of information are permissive. Thus only "one or more" of the recited items is required. AB once again baselessly replaces "or" with "and." As above, AB offers nothing to show lexicography or disavowal, or any reason why clearly open-ended and disjunctive language should be narrowly construed as a conjunctive. *See, e.g.*, *Dominion Assets LLC v. Masimo Corp.*, Case No. 14-cv-03002-BLF, 2015 WL 1928458, at *3 (N.D. Cal. Apr. 28, 2015) (it is a "basic tenet of claim construction that limitations from the specification should not be imported into unambiguous claims" (citing *DSW, Inc. v. Shoe Pavilion, Inc.*, 537 F.3d 1342, 1348 (Fed. Cir. 2008))). AB's proposed construction should be rejected.

For purposes of this term, AB does not propose constructions for the types of information provided in Claim 1 element c): "external conditions, a projectile, a relation of a shooter and a target, and a ballistics drag model and ballistic coefficient by running said ballistics computer program on said processor." AB notes that "'Ballistic coefficient' is as exemplified by William Davis, American Rifleman, March, 1989." (ECF No. 23-1, Ex. A at 7.) But this recitation from the specification does not inform AB's proposed construction because AB does not propose a construction for "Ballistic coefficient." (*See* '971 at 6:19-21.) Repeating an exact statement from the specification is therefore unnecessary redundancy that will not assist the jury. AB's

[21] Emphasis in original.

construction is otherwise contrary to the teachings of the specification, for the same reasons discussed with respect to claim 1 element b). (*See* '971 at 12:54-56; 27:9-14.)

**G. "Information…regarding…a ballistics drag model and ballistic coefficient" (Claims 1(b), 1(b)(iv), 1(c))**

| Horus Vision's Proposed Construction | Applied Ballistics' Proposed Construction |
|---|---|
| "Information…regarding…a ballistics drag model and ballistic coefficient" should have its common and well-understood meaning. | This element requires the user to enter information concerning both a ballistics drag model and ballistic coefficient. "Ballistic coefficient" is as exemplified by William Davis, American Rifleman, March, 1989. |

As "information" regarding or related to "a ballistics drag model and ballistic coefficient" is commonly understood, Horus Vision proposes this term have its common and well-understood meaning. Horus does not dispute that "and" means "and" here. Thus there is no dispute that, to the extent this element is practiced at all (because it is one of four "or" options from claim elements 1(b) and 1(c)), when practiced it requires information regarding both a ballistics drag model and ballistics coefficient be input into the ballistics calculator.

AB does not propose constructions of a "ballistics drag model" or a "ballistic coefficient." AB again notes that "'Ballistic coefficient' is as exemplified by William Davis, American Rifleman, March, 1989." (ECF No. 23-1, Ex. A at 6-7.) As a verbatim recitation from the specification, (*see* '971 at 6:19-21), this statement is redundant.

AB's construction suffers from a key deficit because it introduces a completely new claim element ("the user") and requires that only he or she can be the one to enter this information. This is an unsupported attempt to narrow the claim that would also impermissibly exclude disclosed embodiments. *See In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1324 (Fed. Cir. 2011) ("there is a strong presumption against a claim construction that excludes a disclosed embodiment"). For example, in one embodiment, "[t]he ballistics calculator of the present invention is able, as an option, to convert the ballistic coefficient to custom drag models and ballistics coefficients for any drag model using velocity or bullet dimension." (*See* '971 at 63:25-28.) In this embodiment, the ballistic coefficient and the drag model are not two separate inputs that must both be entered by the user. Instead, the ballistic coefficient may be converted

by the ballistics calculator to a custom drag model. Thus, in a disclosed embodiment, the drag model is input by the calculator itself upon conversion from ballistic coefficient information, an embodiment excluded by AB's proposed new element of "the user."

In another embodiment, the ballistics coefficient need not be input by the user, but rather "the ballistics calculator system may access this information through a bar code imprinted on the ammunition box, or directly on the ammunition." (*See* '971 at 32:26-28.)[22] In yet another embodiment, the shooter may need to determine the ballistics coefficient "by shooting the projectiles in known conditions and entering the observed impact of the bullet in relation to the point of aim." (*See* '971 at 32:30-32.) The shooter thereby uses the ballistics calculator, without the information that AB claims is required, as a means of determining the information itself.

AB does not identify lexicography by the patentee or disavowal in support of its narrowing claim construction. *See Thorner*, 669 F.3d at 1367 ("The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope."). This construction, which would exclude embodiments from the scope of the claims, should be rejected in favor of the plain and ordinary meaning of "Information…regarding…a ballistics drag model and ballistic coefficient."

### H. "Information…regarding…a projectile (Claims 1(b), 1(b)(ii), 1(c))

| Horus Vision's Proposed Construction | Applied Ballistics' Proposed Construction |
|---|---|
| "Information…regarding…a projectile" should have its common and well-understood meaning. | Information regarding a projectile means its weight in grains or some other measure, form factor, cross-sectional area, cross-sectional density, angle of departure, or muzzle velocity. It does not include the projectile's ballistic coefficient. |

"Information…regarding…a projectile" should be given its plain and ordinary meaning, as proposed by Horus Vision, because it employs common and well-understood language to describe the claimed limitation. AB's proposed construction improperly seeks to import

[22] The patent also teaches that information can be received by the ballistics calculator directly from another device, such as a weather meter, and not from a user. (*See, e.g.*, '971 at 40:12-21.)

limitations into the claims by limiting its scope to only specific types of projectile information recited in the specification. AB points to nothing beyond the existence of the inclusive teachings of the specification as evidence to support its claim redrafting. This is insufficient. *Phillips*, 415 F.3d at 1323; *Thorner*, 669 F.3d at 1367.

Thus, AB's construction is contrary to the teaching of the specification and would exclude disclosed embodiments from claim scope.

The specification describes projectile information:

> projectile information (for example, projectile weight, projectile diameter, projectile caliber, projectile cross-sectional density, one or more projectile ballistic coefficients . . ., projectile configuration, propellant type, propellant amount, propellant potential force, primer, and muzzle velocity of the cartridge)

('971 at 6:16-30.) This list expressly states that it is "for example," rather than an express disavowal of any additional information as AB argues.

The specification also provides, within parentheticals containing examples of projectile information, "one or more projectile ballistic coefficients." The patent thereby rejects AB's proposed construction that projectile information "does not include the projectile's ballistic coefficient." Indeed, AB's proposed construction omits many of the examples provided. Once again, this term is not limited "specifically and exclusively to the items enumerated" by AB's proposed construction. (*See* '878 Markman at *12.) Further, the specification explicitly refers to a "projectile ballistic coefficient" as an exemplary parameter in a disclosed embodiment. ('971 at 6:18-20.) To graft select limitations from some embodiments into claim language, as AB proposes to do here, is contrary to well-settled law. *Phillips*, 415 F.3d at 1323.

AB's proposed construction, which contradicts the teachings of the specification, should be rejected in favor of the term's plain and ordinary meaning. The Court should reject AB's proposed construction but need not construe "Information…regarding…a projectile."

## I. "Wherein said reticle is as shown in FIG. [or FIGS.]" (Claims 2, 3, 4)

| Horus Vision's Proposed Construction | Applied Ballistics' Proposed Construction |
|---|---|
| "wherein said reticle is as shown in FIG. [or FIGS.]" should have its common and well-understood meaning. | The reticle must appear exactly as it does in the relevant Figure or Figures |

Horus Vision's construction of plain and ordinary meaning should be adopted in light of the term's well-understood meaning.

AB does not point to lexicography by the patentee or disavowal, to support departure from the term's plain and ordinary meaning. *See Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007) (holding that claim construction "need not always purge every shred of ambiguity"); *see also Thorner*, 669 F.3d at 1365 (To act as his own lexicographer, a "patentee must clearly set forth a definition of the disputed claim term other than its plain and ordinary meaning.") (internal quotations and citation omitted). Indeed, it is unclear what AB's proposed construction, requiring the "reticle must appear exactly as it does in the relevant Figure or Figures," would add to basic tenets of direct infringement and doctrine of equivalents law. Because AB gives no indication of how "exactly as shown" differs from "as shown," there is no need for claim construction. To the contrary, AB's construction would create ambiguities about how "exact" is exact enough to satisfy the claim, when nothing in the evidence supports importing this new legal issue into the claims.

AB's proposed construction requiring exactness ignores the practical realities associated with patent documents. The drawings referenced in the claims at issue are images made using ink on paper. Reticles are high-precision instruments whose markings are often precisely etched on quality glass. Thus, the drawings in the patent cannot be expected to match, with atomic accuracy, a reticle accused as part of the claimed method. Instead, the drawing shows a clear and distinguishable pattern, whose pattern (or the equivalent thereof) should be replicated on a reticle accused of use in an infringing manner.

In addition, the figures referenced in the dependent claims are not all drawn to scale. *See* ('971 at 16:3-9 ("54 b-q provide magnified views of subregions of the reticle…. FIGS. 54 b-q

vary in scale as represented in the coordinate map of FIG. 54a.").) Additionally, some of the figures referenced in the dependent claims represent only particular views of a reticle, from a particular device. ('971 at 16:10-12 ("FIG. 54r is a front view of a reticle of an embodiment of the present invention, showing the markings as viewed through a zoom telescopic gunsight at intermediate power"); *id* at 16:17-19 ("FIG. 54s is a front view of a reticle of an embodiment of the present invention, showing the markings as viewed through a zoom telescopic gunsight at high power.").) To be "exact[]," AB's proposed construction would require a particular view, of a particular reticle, through a particular type of device, at a particular magnification. It defies common sense to argue that one of ordinary skill in the art would ignore the express teachings of the specification that some of the drawings are not done to scale. Instead, one of skill in the art would perform the straightforward procedure of comparing a given reticle against the claimed drawings to determine whether the complete pattern of markings and cross-hairs are depicted "as shown" in the figure in order to determine if the reticle is within the scope of the claims. AB's proposed construction should be rejected in favor of the term's plain and ordinary meaning, thus no construction of this term is needed to assist the jury.

## V. CONCLUSION

For the foregoing reasons, Horus Vision respectfully requests that the Court enter a *Markman* order construing disputed terms according to Horus Vision's proposed constructions.

Dated: June 22, 2015

Respectfully submitted,

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